



IpChannel Bank Multi-Port FXS & FXO Gateway Router SmartNode™ 4900 Series

The IpChannel Bank is the perfect VoIP gateway for applications requiring 12 to 32 concurrent analog voice/fax calls within a single redundant solution.

12, 16, 24 or 32 FXS or FXO ports

Simultaneous voice or fax calls on all ports. Advanced local call switching.

Full SIP and T.38 support

Supports the complete range of industry standard VoIP: SIP, H.323, T.38 fax, fax and modem bypass, DTMF relay. Codecs G.729, G.723 etc.

Secure Toll-Quality VoIP

DownStreamQoS and Voice-over-VPN with adaptive traffic management and shaping for maximum voice quality and secure voice communication.

Complete Access Routing

Two 10/100 Ethernet ports with auto MDI-X. Access router with NAT, Firewall, PPPoE, DHCP, DynDNS, multiple VLANs & VPN with IPsec.*

Optional Integrated WAN uplink

Choose from V.35, X.21, T1/E1, ADSL and G.SHDSL data interfaces in addition to the two Ethernet ports.

Outstanding Interoperability

Interoperable for voice and T.38 fax with leading SIP service providers, soft-switch vendors and leading IP-PBX systems.

The SmartNode 4900 is the ideal solution for service providers and enterprises requiring high-density analog connections for converged Internet-Telephony. Call centers, multi-tenant-units and PBX/switch extensions can now access the low-cost benefits of packet voice while WAN, data and VPN features permit direct access the IP network with full upstream and DownStream QoS™.

The SN4900 supports 12 to 32 simultaneous VoIP calls over standard two-wire FXS connections. The analog ports are presented on a single Amphenol telco connector for convenient wiring closet connection. Local LAN connectivity is presented via dual 10/100 Ethernet ports. Traffic can be routed out either port for load-balancing and redundancy. Dual-redundant power supplies protect against equipment down-time.

Seamless and secure network integration with fixed IP, DHCP or PPPoE. Complete access routing features include NAT/NAPT, Firewall, DynDNS and the optional IPsec VPN feature license offer secure data.

Optional WAN uplink modules, available in V.35/X.21, T1/E1, and xDSL options, eliminate the need for extra network termination devices and extra cost.

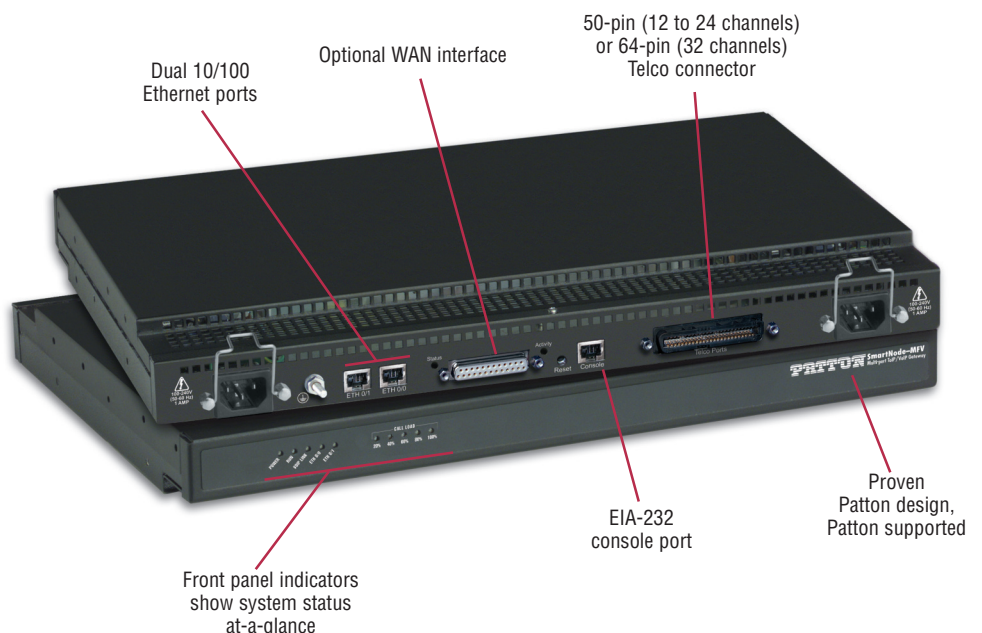
Quality of Service (QoS) features included advanced voice prioritization and traffic management. DownStreamQoS™ ensures voice without interruptions even over best-effort internet connections. Packet labeling according to 802.1p, TOS and DiffServ enable integration into managed QoS networks.

Integrated GUI and Command Line, front panel status and call load indicators and a full suite of management interfaces ensure efficient setup, continuous trouble-free operation and cost-effective deployment.

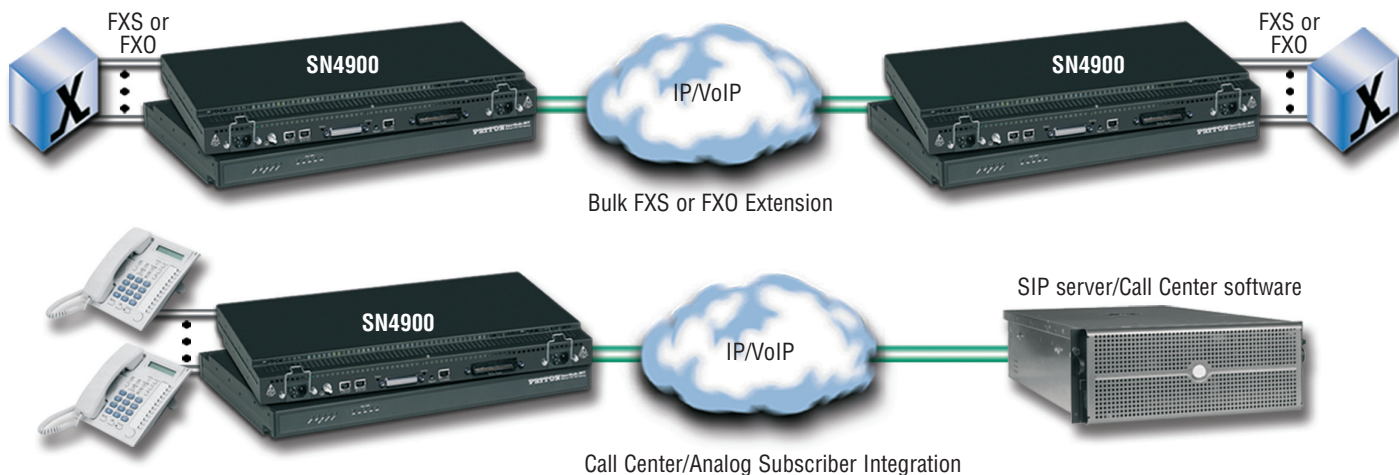
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Remote Office/Branch Office Voice Extension and Access diagram



Specifications*

Capacity

12, 16, 24, 32 simultaneous VoIP calls
Voice Signaling: SIPv2 H.323v4 (simultaneously with B2BUA capability) • SIP call transfer, redirect • DTMF in-band & out-of-band • All tones programmable (dial, ringing, busy)

Voice Processing

CODEC G.711 a-law/mu-law, G.723, G.729ab, • G.726, G.727, T.38 fax relay (9.6 k, 14.4 k) • G.711 transparent fax and bypass

Call Switching and Services

Regular expression based call routing and number manipulation • Number blocking • Short-dialing • Digit collection, distribution and hunt groups • Transparent line extension

FXS Connectivity

2-wire Loopstart on 50pin (12 to 24 channels) or 64-pin (32 channels) Telco connector • short haul loop 1.1km @3REN • EuroPOTS (ETSI EG201188) • programmable AC impedance, feeding, ring and on-hook voltage • Caller-ID FSK and ITU V.23/Bell 202 generation

FXO Connectivity

2-wire Loopstart on 50pin (12 to 24 channels) or 64-pin (32 channels) Telco connector • Programmable impedance, ring detection, tone detection, disconnect supervision • Caller ID detection

Data Services

Two 10/100 Ethernet ports • Complete IP access router • DHCP Client & server • Packet fragmentation • Static firewall, NAT, NAPT RFC 1631 access control lists • DMZ port

Quality of Service

Voice priority • DownStreamQoS™ • Traffic management, shaping and policing • IEEE 802.1p, TOS, DiffServ labeling • IEEE 802.1Q, VLAN tag insertion/deletion 4,096

Optional WAN interfaces

X.21/V.35 Frame Relay (8 PVCs); RFC1490, FRF.12 fragmentation; LMI, Q.933D, ANSI 617D, Gang of Four; PPP, PAP, CHAP, LCP, IPCP) • T1/E1 (ITU-T G.703, ANSI T1.403; & AMI, B8ZS, HDB3) • ADSL2+ (Annex A, B, I, J, I, M, U-R2) • G.SHDSL (G.991.2, Annex A, B, F, G, Up to 5.7Mbps, 8 PVCs, QoS)

Management

Web/HTTP, CLI with local console and remote Telnet access • TFTP configuration & firmware loading • SNMP MIB II and product MIB • Secure auto-provi-

sioning for both firmware and unit/subscriber configuration • Built-in diagnostic tools (trace, debug, call generator)

System

CPU Motorola MPC875 @ 133 MHz • Memory 32MB SDRAM/8MB Flash

Power

100–240 VAC (50/60 Hz) • Power dissipation: > 22W (60W max, model SN4932/JS/RUI)

Temperature

0–40°C

Humidity

5–80% (non condensing)

Compliance

EMC compliance: EN55022 and EN55024 • Safety compliance: EN 50950 • CE compliance • FCC Part 15 Class A • RoHS

Ordering Information

SN4912/JS/RUI: IpChannel Bank 12 Port FXS

SN4916/JS/RUI: IpChannel Bank 16 Port FXS

SN4924/JS/RUI: IpChannel Bank 24 Port FXS

SN4932/JS/RUI: IpChannel Bank 32 Port FXS

SN4912/JSX*/RUI: IpChannel Bank 12 Port FXS WAN Uplink

SN4916/JSX*/RUI: IpChannel Bank 16 Port FXS WAN Uplink

SN4924/JSX*/RUI: IpChannel Bank 24 Port FXS WAN Uplink

SN4932/JSX*/RUI: IpChannel Bank 32 Port FXS WAN Uplink

Options & Accessories

SNSW-VPN1: License Key for IPsec VPN support (DES, 3DES, AES)

SN4912/JO/RUI: IpChannel Bank 12 Port FXO

SN4916/JO/RUI: IpChannel Bank 16 Port FXO

SN4924/JO/RUI: IpChannel Bank 24 Port FXO

SN4932/JO/RUI: IpChannel Bank 32 Port FXO

SN4912/JOX*/RUI: IpChannel Bank 12 Port FXO, WAN uplink

SN4916/JOX*/RUI: IpChannel Bank 16 Port FXO, WAN uplink

SN4924/JOX*/RUI: IpChannel Bank 24 Port FXO, WAN uplink

SN4932/JOX*/RUI: IpChannel Bank 32 Port FXO, WAN uplink

Note: 48VDC or split 48VDC/11 power options available.

*X = Interface options: C=V.35, D=X.21, K=E1, T=T1, F=Fiber, A/x=ADSL, G=G.SHDSL

* Specifications subject to change without notice.



Meriedweg 7
CH-3172 Niederwangen
Phone +41 (31) 985 25 25
Fax +41 (31) 985 25 26
E-mail sales@inalp.com
Web www.inalp.com



7622 Rickenbacker Drive
Gaithersburg, MD 20879 USA
Phone +1-301-975-1000
Fax +1-301-869-9293
E-mail sales@patton.com
Web www.patton.com

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